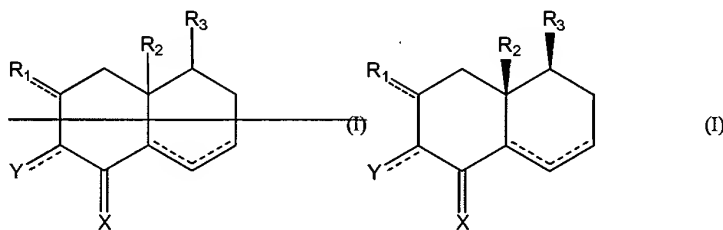


AMENDMENTS TO THE CLAIMS

1.-25. (Canceled)

26. (Currently amended) A method for controlling pests, said method comprising exposing said pests to a pest-controlling effective amount of a compound of formula (I) or a tautomer thereof or a composition comprising at least one compound of formula (I) or a tautomer thereof:



wherein:

X is selected from O, S or N-R₄;

when ----- is a single bond attached to Y, Y is selected from the group consisting of H, [C(R₇)₂]_nhalo, [C(R₇)₂]_nOR₅, [C(R₇)₂]_nSR₅, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

when ----- is a double bond attached to Y, Y is O;

when ----- is a single bond attached to R₁, the substituent R₁ has a stereochemistry syn to substituents R₂ and R₃ and R₁ is selected from the group consisting of H, OH, SH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₄-C₁₀ cycloalkenylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy, C₂-C₁₀ alkenyloxy, C₁-C₁₀ alkylthio, C₂-C₁₀ alkenylthio, [C(R₇)₂]_nhalo, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

when ----- is a double bond attached to R₁, R₁ is CR_{1a}R_{1b} wherein R_{1a} and R_{1b} are independently selected from C₁-C₁₀alkyl;

R₂ and R₃ are independently selected from the group consisting of H, OH, SH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl,

C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₄-C₁₀ cycloalkenylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy, C₂-C₁₀ alkenyloxy, C₁-C₁₀ alkylthio, C₂-C₁₀ alkenylthio, [C(R₇)₂]_nhalo, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

each R₄ is independently selected from the group consisting of H, OH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy and C₂-C₁₀ alkenyloxy;

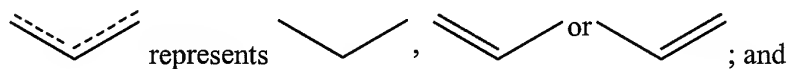
R₅ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, (C=O)R₆, PO₃R₈, SO₃R₈ and SO₂R₈;

R₆ is selected from the group consisting of H, OH, C₁-C₁₀ alkoxy, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyloxy, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₆-C₁₀ aryloxy, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₃-C₆ cycloalkyloxy, C₃-C₆ cycloalkenyloxy, C₃-C₁₀ heterocyclyl, C₃-C₁₀ heterocycliloxy, C₁-C₁₀ alkylthio, C₁-C₁₀ alkenylthio, C₆-C₁₀ arylthio, C₃-C₆ cycloalkylthio, and C₃-C₁₀ heterocyclylthio;

R₇ is selected from the group consisting of H, halogen, OR₅, SR₅, N(R₄)₂, (C=O)R₆, (C=S)R₆, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₃-C₁₀ heterocyclyl, C₃-C₆ cycloalkyl, C₇-C₁₂ arylalkyl, C₄-C₁₂ heterocyclylalkyl, C₄-C₁₀ cycloalkylalkyl, C₈-C₁₃ arylalkenyl, C₅-C₁₃ heterocyclylalkenyl, and NO₂;

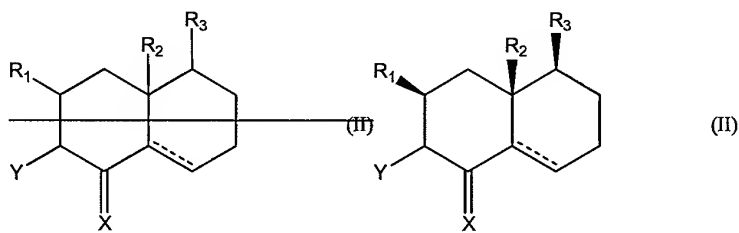
R₈ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₅-C₁₀ cycloalkylalkenyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl and C₅-C₁₃ heterocyclylalkenyl;

n is 0 or an integer selected from 1 to 5;



wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

27. (Currently amended) A method according to claim 26 wherein the compound of formula (I) is a compound of formula (II):



wherein:

X is selected from the group consisting of O, S or N-R₄;

Y is selected from the group consisting of H, [C(R₇)₂]_nhalo, [C(R₇)₂]_nOR₅, [C(R₇)₂]_nSR₅, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

R₁, R₂ and R₃ are independently selected from the group consisting of H, OH, SH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₄-C₁₀ cycloalkenylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy, C₂-C₁₀ alkenyloxy, C₁-C₁₀ alkylthio, C₂-C₁₀ alkenylthio, [C(R₇)₂]_nhalo, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

each R₄ is independently selected from the group consisting of H, OH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy and C₂-C₁₀ alkenyloxy;

R₅ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, (C=O)R₆, PO₃R₈, SO₃R₈ and SO₂R₈;

R₆ is selected from the group consisting of H, OH, C₁-C₁₀ alkoxy, C₁-C₁₀ alkyl, C₂-C₁₀

alkenyloxy, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₆-C₁₀ aryloxy, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₃-C₆ cycloalkyloxy, C₃-C₆ cycloalkenyloxy, C₃-C₁₀ heterocyclyl, C₃-C₁₀ heterocyclyloxy, C₁-C₁₀ alkylthio, C₁-C₁₀ alkenylthio, C₆-C₁₀ arylthio, C₃-C₆ cycloalkylthio, and C₃-C₁₀ heterocyclylthio;

R₇ is selected from the group consisting of H, halogen, OR₅, SR₅, N(R₄)₂, (C=O)R₆, (C=S)R₆, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₃-C₁₀ heterocyclyl, C₃-C₆ cycloalkyl, C₇-C₁₂ arylalkyl, C₄-C₁₂ heterocyclalkyl, C₄-C₁₀ cycloalkylalkyl, C₈-C₁₃ arylalkenyl, C₅-C₁₃ heterocyclalkenyl, and NO₂;

R₈ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₅-C₁₀ cycloalkylalkenyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclalkyl and C₅-C₁₃ heterocyclalkenyl;

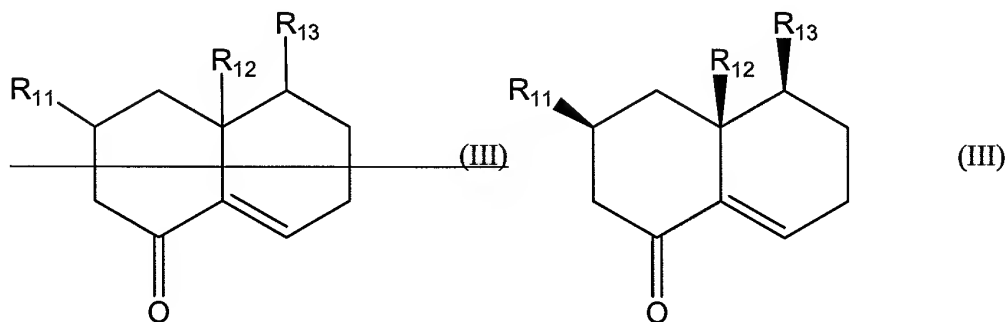
n is 0 or an integer selected from 1 to 5;

----- represents a single or double bond; and

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

28. (Canceled)

29. (Currently amended) A method according to claim 26, wherein at least one compound of formula (I) is a compound of formula (III):



wherein

R₁₁ is selected from the group consisting of C₂-C₁₀ alkenyl, C₇-C₁₂ arylalkyl, C₆-C₁₂ heteroarylalkyl and C₂-C₁₀ alkenyloxy wherein each C₂-C₁₀ alkenyl or C₂-C₁₀ alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

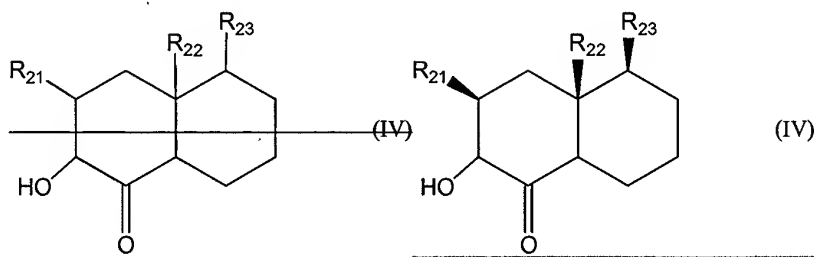
R₁₂ and R₁₃ are independently selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₃-C₁₀ cycloalkyl, C₅-C₁₀ heteroaryl, C₆-C₁₂ heteroarylalkyl and C₁-C₁₀ alkoxy, wherein each C₁-C₁₀ alkyl and C₁-C₁₀ alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

30. **(Previously presented)** A method according to claim 29, wherein R₁₁ is C₂-C₁₀ alkenyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups, and R₁₂ and R₁₃ are independently selected from C₁-C₁₀ alkyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups.

31. **(Previously presented)** A method according to claim 26 wherein at least one compound of formula (I) is eremophilone.

32. **(Canceled)**

33. **(Withdrawn- Currently amended)** A method according to claim 26 wherein at least one compound of formula (I) is a compound of formula (IV):



wherein R₂₁, R₂₂ and R₂₃ are independently selected from the group consisting of H, OH, SH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₄-C₁₀ cycloalkenylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy, C₂-C₁₀ alkenyloxy, C₁-C₁₀ alkylthio, C₂-C₁₀ alkenylthio, [C(R₇)₂]_nhalo, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

each R₄ is independently selected from the group consisting of H, OH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl,

C₄-C₁₀ cycloalkylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy and C₂-C₁₀ alkenyloxy;

R₆ is selected from the group consisting of H, OH, C₁-C₁₀ alkoxy, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyloxy, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₆-C₁₀ aryloxy, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₃-C₆ cycloalkyloxy, C₃-C₆ cycloalkenyloxy, C₃-C₁₀ heterocyclyl, C₃-C₁₀ heterocycliloxy, C₁-C₁₀ alkylthio, C₁-C₁₀ alkenylthio, C₆-C₁₀ arylthio, C₃-C₆ cycloalkylthio, and C₃-C₁₀ heterocyclylthio;

R₇ is selected from the group consisting of H, halogen, OR₅, SR₅, N(R₄)₂, (C=O)R₆, (C=S)R₆, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₃-C₁₀ heterocyclyl, C₃-C₆ cycloalkyl, C₇-C₁₂ arylalkyl, C₄-C₁₂ heterocyclylalkyl, C₄-C₁₀ cycloalkylalkyl, C₈-C₁₃ arylalkenyl, C₅-C₁₃ heterocyclylalkenyl, and NO₂;

R₈ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₅-C₁₀ cycloalkylalkenyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl and C₅-C₁₃ heterocyclylalkenyl; and

n is 0 or an integer selected from 1 to 5;

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

34. **(Withdrawn)** A method according to claim 33 wherein R₂₁ is selected from the group consisting of C₂-C₁₀ alkenyl, C₇-C₁₂ arylalkyl, C₆-C₁₂ heteroarylalkyl and C₂-C₁₀ alkenyloxy wherein each C₂-C₁₀ alkenyl or C₂-C₁₀ alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

R₂₂ and R₂₃ are independently selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₃-C₁₀ cycloalkyl, C₅-C₁₀ heteroaryl, C₆-C₁₂ heteroarylalkyl and C₁-C₁₀ alkoxy, wherein each C₁-C₁₀ alkyl and C₁-C₁₀ alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

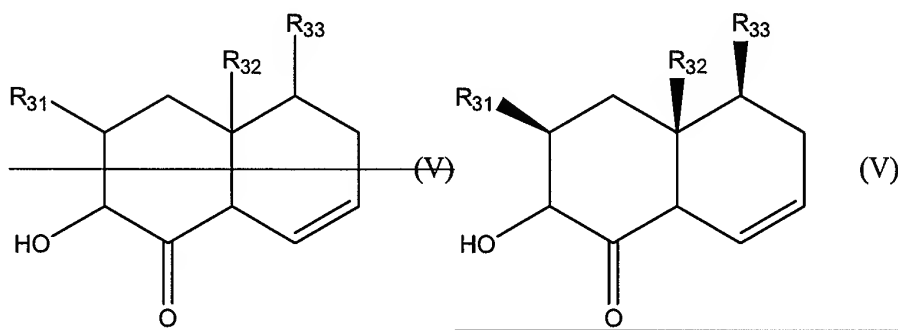
35. **(Withdrawn)** A method according to claim 34 wherein R₂₁ is C₂-C₁₀ alkenyl, optionally substituted with a hydroxy, thiol or nitro group or 1 to 3 halo groups, and R₂₂ and R₂₃

are independently selected from C₁-C₁₀ alkyl, optionally substituted with a hydroxy, thiol or nitro group or 1 to 3 halo groups.

36. **(Withdrawn)** A method according to claim 26 wherein at least one compound of formula (I) is 8-hydroxy-1(10) dihydroeremophilone.

37. **(Canceled)**

38. **(Withdrawn- Currently amended)** A method according to claim 26 comprising at least one compound of formula (V):



wherein R₃₁ is selected from the group consisting of C₂-C₁₀ alkenyl, C₇-C₁₂ arylalkyl, C₆-C₁₂ heteroarylalkyl and C₂-C₁₀ alkenyloxy wherein each C₂-C₁₀ alkenyl or C₂-C₁₀ alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

R₃₂ and R₃₃ are independently selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₃-C₁₀ cycloalkyl, C₅-C₁₀ heteroaryl, C₆-C₁₂ heteroarylalkyl and C₁-C₁₀ alkoxy, wherein each C₁-C₁₀ alkyl and C₁-C₁₀ alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

39. **(Withdrawn)** A method according to claim 38 wherein R₃₁ is C₂-C₁₀ alkenyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups, and R₃₂ and R₃₃ are independently selected from C₁-C₁₀ alkyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups.

40. **(Withdrawn)** A method according to claim 26 wherein at least one compound of formula (I) is 8-hydroxyeremophila-1,11-dienone.

41. **(Previously presented)** A method according to claim 26 wherein the composition comprises an extract containing at least one compound of formula (I) obtained from a volatile oil bearing plant from the Myoporaceae family.

42. (Canceled)
43. (Canceled)
44. (Previously presented) A method according to claim 26 wherein the pest-controlling effective amount is a pesticidally effective amount.
45. (Previously presented) A method according to claim 26 wherein the pest-controlling effective amount is a pest-repelling effective amount.
46. (Previously presented) A method according to claim 26 wherein the pest-controlling effective amount is a antifeedant effective amount.
47. (Previously presented) A method according to claim 26 wherein the pests are selected from the group consisting of insects, arachnids, helminths and molluscs.
48. (Previously presented) A method according to claim 26 wherein the pests are selected from the group consisting of termites, earwigs, cockroaches and wood borer beetles and their larvae.
49. (Previously presented) A method according to claim 26 wherein the pests are wood associated pests.
50. (Previously presented) A method according to claim 49 wherein the wood associated pests are selected from the group consisting of termites and wood borer beetles.
51. (Previously presented) A method according to claim 50 wherein the wood associated pests are termites.
52. (Previously presented) A method according to claim 26 wherein pests are exposed to the pest-controlling effective amount of a compound of formula (I) or a composition comprising at least one compound of formula (I) by applying the compound or composition to a site of infestation, a potential site of infestation, a habitat of the pest or a potential habitat of the pest.
53. (Previously presented) A method according to claim 52 wherein the compound or composition is applied to a surface or impregnated into a material or article of manufacture.
54. (Previously presented) A method according to claim 53 wherein the compound or composition is applied to a surface by spraying, coating or painting the surface.
55. (Previously presented) A method according to claim 54 wherein the surface is a soil surface, timber, buildings, wooden articles of manufacture or a physical barrier.

56. **(Previously presented)** A method according to claim 55 wherein the material or article of manufacture is soil, timber, timber or wooden products or buildings or parts of buildings.

57. **(Previously presented)** A method according to claim 52 wherein the compound or composition is applied in a band or furrow around a site of infestation or potential infestation or is mixed with a layer of soil at a site of infestation or a potential site of infestation.

58.-78. **(Canceled)**

79. **(Previously presented)** A method of combating an already existing wood associated pest infestation comprising applying at least one compound of formula (I) or a tautomer thereof or a composition comprising at least one compound of formula (I) or a tautomer thereof to a wood associated pest affected surface, wherein the compound of formula (I) is as defined in Claim 26.

80.-82. **(Canceled)**